HEALTHY HOMES AND WHOLESOME FOOD

BY

ANDREW J. B. JENNER, M. D.

FOR EVERYBODY.

ESSENTIALS

OF

A HEALTHY HOME

AND

WHOLESOME FOOD

FOR EVERYBODY,

ESPECIALLY FOR THE WORKING CLASSES.

BY

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etc., etc.

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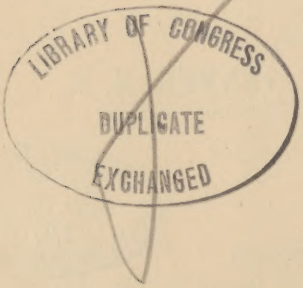

PREFACE.

The contents of this little book profess to be a brief but plain and practical essay upon two highly important necessities in the life of every civilized man, woman and child, namely, a healthy home and wholesome food. That we all might possibly exist, for a time at least, without either of them, is true, but that anyone could live without both is equally false.

The difference between merely existing and actually living is much greater than many people suppose; and this fact is one of the principal reasons why I have taken the trouble to write this book, especially as the people for whom I write are, as a rule, those who suffer most from a want of knowledge of the great fact above mentioned.

In the first place, the houses they live in, and call their home, are anything but healthy, notwithstanding the fact that the price paid for them is, in almost every case, extortionate in the extreme:

whether that money be paid for building, buying or renting the same. In many cases even the common decencies of life are either ignored or neglected; and yet for the very same money, in all cases, and for very much less in many, not only could all the comforts and conveniences, but even many of the luxuries of life be easily procured.

At all events, it is quite certain that all the requirements of health, in so far at least as good drainage and ventilation are concerned, could easily be complied with; and in the majority of the cases to which I allude, the size and arrangement of the rooms might be much better adapted, and the requirements, not only of health, but also of convenience and comfort, and all this for at least the price already paid for so-called houses, which are adapted to neither.

Then again in regard to food, much that is consumed may, in the estimation of some people, be considered good and palatable, but it certainly is not wholesome. Moreover, much money is wasted in this matter also; not only in the first purchase of the goods, but also in the want of economy in the subsequent disposal of the articles purchased.

Furthermore, there is almost always a terrible waste, as well as an injury done, through improper cooking. In this latter respect, it should be known and remembered that even the very best, most wholesome and easily digestible food, may, by bad cookery, be converted into the most unwholesome and indigestible trash imaginable—stuff hardly fit for the stomach of a cultivated hog.

That these are facts is true; and that these are facts worth knowing ought to be also equally true. If this be so, those who read this preface should buy this book, for therein is contained all the information necessary, not only to guard against all the evils that I have briefly mentioned, but it also contains information and advice which will save the purchaser thousands of dollars, if only in escaping his doctor's bills.

In my description of "the essentials of a healthy home," I have not supplied any architectural plan either of the outside appearance, or of the internal arrangement. I have preferred to leave these to the discretion and good judgment of the intended builder or purchaser, as the case may be. I have merely set forth, in as plain and practical a manner

as possible, all the requirements of a thoroughly healthy home; and if the advice herein given is fully and faithfully followed, it matters not what may be the outward form, or the material of which the house is built, provided that it be good of its kind, the result will be as healthy a home as art and science can make one; and at an exceedingly moderate cost. In this latter respect, of course, I mean that the amount expended for actual necessities will, in any case, be comparatively small; anything beyond this will necessarily be in accordance with the means and desires of the builder.

When treating on the subject of food, I have not only described the various principles upon which their nutriment depends, but I have also pointed out the relative advantages and disadvantages of each particular kind. I have also described the various modes of cooking, whereby not only will all the virtues which belong to the article in its natural state be retained, but new ones will also be developed by the process to which it is subjected.

Furthermore, the receipts herein contained are not merely impracticable bosh or cunning deceits,

but are valuable and practical instructions how to prepare almost every kind of really wholesome and nutritious food; and so plainly and minutely are they written, that the veriest fool could hardly make a mistake in following them. At all events, I personally guarantee that, if such instructions are faithfully followed, and barring all accidents, every one of them will turn out just what they are intended to. Moreover, the food herein described and recommended is suited to all—high or low, rich or poor. The former would be especially benefited, if they exchanged many of the dishes to which they are accustomed, and of which they are so fond, for some of those which are described in this little book.

However, I have neither axe to grind, or hobby to ride; my sole end and aim is to aid and assist those for whom I write, and surely their name is legion. That many will not avail themselves of my proffered help, I know full well; some will fail from utter ignorance of the fact that I have ever written; others, however, there may be, who will not only hear of the writing, but perhaps may even handle the book, and yet refuse to buy, or they

may even buy the book, and still refuse to follow the advice therein contained.

For such I pray, that they may never rue the day, on which they threw that chance away.

In any case, I shall have the extreme satisfaction to know and to feel that I have done my duty to them all.

With best wishes for your health and happiness, gentle reader, and for the success of this little book,

Believe me to remain,

Sincerely yours,

THE AUTHOR.

Detroit, Mich., May 1, 1886.

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OF A

HEALTHY HOME.

INTRODUCTORY.

Before I say one word upon the subject matter contained in this little book, I wish it to be most clearly understood that in making use of the term *Working Classes*, both upon the title-page, and also in the body of the work, I mean not only such as labor with their hands, but also those who work with their brains; and I include all who work for their daily bread, and consequently whose income is limited as compared with that of the merchant, or of such as are possessed of independent means, and who can consequently afford to erect larger houses, and

to pay for skilled labor, not only in the planning, but also in the erection thereof.

And inasmuch as, now-a-days, many houses are built by speculators, and sold by contract, or upon some other protracted plan, to just such people as those which I have in view; and whereas, such houses are often very indifferently built, not only as regards comfort and convenience, but also, and especially, as regards health, I have here endeavored, in as plain and simple a manner as possible, to set forth such things as are unquestionably necessary from both of these standpoints, in order that a person who either prefers to buy a house already built, or to have one built to his order, to be paid for on some such plan as I have mentioned, may not only know what are these essential requisites, but may also feel assured that no matter how prepossessing a house may be in its outward appearance, it will be of no real value to him unless these prerequisites are thoroughly and efficiently provided for.

Particular and especial care has been taken in pointing out the absolute necessity for thoroughness in the construction of so-called "modern conveniences." They should not only be well planned, but they should also be efficiently carried out, both as to the labor and the materials employed; for, unless this is actually the case, these so-called modern conveniences will prove to be so many modern death-traps successfully planned and effectually carried into execution.

Notwithstanding all that has been said, however, this book is so written that, in the event of any man choosing to build a house for himself, with the single exception of any particular architectural plan, he is fully informed as to everything requisite to constitute a thoroughly healthy home, and if he follows the advice herein given he will most assuredly have one.

In the matter of wholesome food, it would certainly be to the advantage of all—high and low, rich and poor, alike—if they followed the instructions and advice given in the second part

of this book, and made use of some such a dietary, not only in the choice of materials, but also in the modes of preparation therein recommended.

The man of limited means, however, has a decided advantage over his more wealthy neighbor, in the fact that he cannot afford to pay for the unwholesome epicurean trash which is served up to the latter at every meal during the day.

Furthermore, he may have the satisfaction to know that there is scarcely one in a thousand among them, no matter how many cooks he may employ, or how much money it may cost him, who ever has such wholesome and nutritious food so temptingly and deliciously set before him as all may have who implicitly follow the instructions herein given.

As a rule, these professional and high-priced cooks, instead of trying to develop the natural excellencies of the food before them, and in so doing increase not only its toothsomeness, but also its wholesomeness and digestibility, strive

by every means at their command (and their name is legion) not only to spoil it both in substance and flavor, but also to render it totally unfit for food, in the proper acceptation of that term; for nothing can properly be called food which does not strengthen and build up the body in all its parts. Made dishes and highly-seasoned articles of all kinds will never do this; on the contrary, they not only cause disease in a variety of forms, but they actually shorten life. They create an artificial appetite, which induces one to eat too much; indigestion follows, which if often repeated becomes chronic; the stomach, liver, and other organs of digestion become actually diseased, often fatally so.

At all events, no man can expect to be strong and healthy, and to arrive at a good old age, unless he has a tolerably healthy stomach; and no man can possibly have a good stomach who does not live upon plain, wholesome, and easily digested food.

Having said this much by way of introduction, we will pass on to consider in detail

THE ESSENTIALS OF A HEALTHY HOME.

Abundance of sunlight, thorough ventilation and good drainage are prerequisites to a healthy home for all classes. With these, a house with even unattractive exterior is a dwelling fit for any man; without them, no house, however costly and desirable in other respects, is fit for the habitation of even a valuable beast.

Suitable houses for the working classes may be built either

DETACHED, OR IN ROWS,

The essentials being the same in either case. In the former, however, there is greater privacy but more exposure to cold; whereas, the latter are much more easily and cheaply kept warm; and, even in the matter of privacy, may be made nearly as good as the former by simply paying proper attention in building the partition walls; which should always be double, and filled in with some non-conductor of sound, as sawdust, dry earth, etc.

Workingmen's homes might also be built in

FLATS;

But I consider them objectionable from many points of view, both sanitary and social. Chief among the sanitary objections is the difficulty of collecting, under one roof, several families having an equal regard for cleanliness. Hence, one tribe might easily pollute and render unhealthy the whole building; and, in the event of an outbreak of infectious or contagious disease, isolation, or even proper protection, would be almost impracticable. From a social point of view, this arrangement almost precludes the possibility of that privacy which is, at once, the secret and the charm of real home life. Furthermore, small one or two-story houses spread the population over a much wider surface, and so offer less obstruction to the free circulation of pure air.

I do not consider that, in an essay such as this, any definite or detailed architectural plan is at all necessary; a plain and practical description of that which is absolutely needed being all that

is actually called for. If the general principles, herein laid down, are faithfully followed, it will be perfectly safe to allow each individual to follow the bent of his own inclinations as to style and general ornamentation; and he will certainly have as healthy a home as art and science can make one.

Beginning, then, at the very foundation, the first question which naturally presents itself is, Shall there be an

UNDERGROUND CELLAR

Or shall there not be one?

It would, of course, be well if every house had a well-constructed and thoroughly-ventilated cellar under every part of it. But, as the necessary digging would form a very expensive item, it would, perhaps, be as well to do without one. Moreover, many people are accustomed to store fruit and vegetables in a cellar, which, unless great watchfulness and care be exercised, are very liable to ferment and decay, and so exhale noxious gases which, of course, will find their

way into the house, and become the cause of many and serious diseases. Furthermore, all kinds of rubbish are often stowed away, out of sight, in a cellar, which, in time, become another source of impurity and other malarious and malodorous influences. For these, and many other such reasons, therefore, it will be probably best, on the whole, to do without an underground cellar.

If, however, it is determined to have one, the greatest possible care should be exercised in its construction. It must be

DRY, LIGHT AND AIRY.

In order to insure the first of these requisites, four-inch porous draining tiles should be laid all round and outside of the proposed foundation, and at a depth of, at least, two feet below the floor of the proposed cellar. These tiles should converge at the back, and be connected with a drain running directly to the sewer, or to some other natural or artificial outlet. Within the

space enclosed by the foundation walls, rows of two-and-a-half-inch tiles should be laid at the same depth as the four-inch tiles, about three feet apart, running from front to back, and connected at the back with the four-inch tiles above mentioned. These tiles should be evenly laid, well bedded, and at such a pitch as will prevent the stagnation of water within them. If properly laid, these tiles will keep the whole of the ground underneath the cellar perfectly dry.

THE FOUNDATION WALLS

Should be of hard burnt brick or stone, laid in good water-lime, and well cemented on the outside to at least six inches above the surface of the ground. The depth of the cellar, underground and above the floor, should be, at least, three feet, with the same height above the bottom edge of the joists; thus making a total height of six feet in the clear. The inside of the walls should be evened up with plaster, and hard-finished in white.

If all this is thoroughly done, not only will the cellar be perfectly dry, but a great deal will have been done towards the accomplishment of the second desideratum, namely, light. To fully accomplish this, there should be windows on all the exposed sides; and they should be so placed as to be opposite to each other, so that, by opening them, a thorough draught may be obtained, and so secure the third thing needed, namely, fresh air. In order to still further increase the quantity and enhance the quality of the latter, the house chimneys should be built clear down to the cellar floor, and flues left near the ceiling for upper ventilation.

NO SHELVES

Should be placed in contact with a cellar wall; but should always be either suspended from the ceiling, or they should form an independent frame-work; and they should be so arranged that one can go around them; and, if any bins are used, the front of each should always be movable, in order that it may be thoroughly cleaned

when it is empty. A cellar such as this would be not only a convenience, but a positive advantage to any house; whereas, one that did not come up to these requirements, might soon become so detrimental as to far outweigh any supposed conveniences which it might afford. It is hardly necessary to add that it and its contents must be kept scrupulously sweet and clean.

With a cellar such as this, and with the necessary care, provisions for the winter may be so laid in, that by purchasing in season, a bushel may be bought for what will have to be paid for a gallon in the winter; so that the money thereby saved would, in a very short time, pay for the cost of its construction.

THE FOUNDATIONS

Of a house to be built without an underground cellar, require to be of the same material and as deeply laid in the ground as those above described; but the height above ground, to the bottom of the flooring joists, need be no more than two feet, or two feet six inches at the out-

side; and simple ventilators should be inserted instead of the windows required in the former case. Indeed, if thought desirable, all this may be dispensed with, the joists being laid directly on top of the foundation walls, on a level with the surface of the ground. In this case, however, it would be desirable to lay, upon the surface of the ground, a bed of hard cement, at least six inches thick; a similar floor should be also laid in the cellar above described. The spaces between the joists and the floor above should also be filled in with concrete or cement.

But if it is preferred to have the house raised above the surface of the ground, the bottom edges of the joists should be ceiled, and the spaces between them and the floor above, should be filled in with cinders, or coarsely powdered charcoal. This will not only prevent any dampness or malaria, arising from the ground, from penetrating to the rooms above, but it will also greatly add to the healthfulness, warmth and comfort of the house. These last remarks apply, with equal force, to the joists which are

laid on the top of the walls of the cellar above described.

Having now laid a solid foundation, the superstructure may be built of stone, brick or wood, as suits the taste or pocket of the builder.

THE WALLS OF A COTTAGE

Should be, at least, twelve feet, and of a two-story house twenty feet high; and, in either case, surmounted by a gabled roof.

What is commonly known as a

"MANSARD"

Should never be put on an ordinary dwelling-house. The space beneath is utterly unfit to be used for healthy sleeping-rooms, being ovens in summer, and ice-boxes in the winter. Their originator intended them simply to break the long, straight sky-line in five, six and seven-story houses in the principal business streets of large towns and cities, for which purpose they answer admirably, and for nothing else. Even a gabled

roof should not be used for sleeping-rooms, but should be reserved for ventilation; it may also serve as a place wherein to dry clothes in the winter, or in very bad weather. For both of these purposes, a window should be placed in each gable end.

FLAT ROOFS

Are always objectionable by reason of the extremes of temperature, unless a very deep space is left between the ceiling joists and the rafters, which, even then, would be a great waste of space without any compensatory advantage.

If the walls are built of wood, they should be

LINED

As well as weather-boarded; and if this be done both on the outside and on the inside, so much the better. It would, indeed, add slightly to the first cost; this, however, would be more than compensated by the saving in fuel; for such a house would be very much warmer and dryer in winter, and cooler in summer. The walls should also be

FURRED

On the inside. This last remark also applies if the house is built of brick or stone.

The number, size and arrangement of the rooms will, of course, depend upon the shape and size of the house. General instructions in reference thereto will, therefore, be all that is necessary.

A point of the utmost importance, but one which is nearly always neglected, not only in the arrangement of houses for the working classes, but also in the planning of those of far greater pretensions, is the position and size of the

BEDROOMS.

People seem to think that any place is good enough to sleep in; utterly ignoring the fact that, as a rule, most of us spend about one-third of our time in bed. At all events, it is perfectly safe to say that everybody spends more consecutive hours in the bedroom than in any other part of the house. If they do not, they certainly

should do so, if they have any regard for their general health. Therefore, the bedroom should always be the very best in the house, instead of the worst.

Speaking scientifically, no bedroom should ever be less than ten feet long, ten feet wide and ten feet high; giving a breathing space of one thousand cubic feet. A room of this size and capacity is really only fit for the healthy occupation of one person, each individual requiring at least that amount of breathing space. This, however, can scarcely be carried out in practice, as such an arrangement would occupy too much superficial space, especially in large cities. The actual necessity, for the purposes of health, however, remains the same. In order, therefore, to make up for want of space, especial attention must be paid to

VENTILATION.

Every room in a house should be so arranged that there shall be constant, independent and thorough ventilation; and it should be so man-

aged that no carelessness or neglect on the part of the occupants should be able either to interfere with or prevent it. This is especially necessary for the working classes. When a man comes home weary and fatigued with his day's work, he should have a clean and wholesome place wherein to rest. This cannot be had in a small and ill-ventilated bedroom. Pure sleep cannot be had without pure air. A lethargy may indeed overwhelm the weary man, but this cannot, with safety, take the place of pure and refreshing sleep. The want of ventilation is one of the principal reasons why so many people complain that they awake in the morning as tired as though they had never been in bed, even though they may have really spent more than the usual time there. Under such circumstances, the longer they stay there, the worse they will feel, for the atmosphere, already surcharged, becomes more and more impure with every breath they draw.

ALL THE WINDOWS

In a house should be made to open both at the top and at the bottom. This is especially necessary in a bedroom; every window of which should always be opened, both at the top and at the bottom, as soon as the occupants have dressed themselves; and should remain open, for some considerable time, every day in the year. In addition to that provided by the windows, there should always be

CHIMNEY VENTILATION.

It would, of course, be better if there was an open fireplace in every bedroom; but, whenever such is not the case, the stovepipe hole should always remain open. And if, in very cold weather,

A STOVE

Is made use of, it should always be of such a kind as to permit of a free draught of air up the chimney; nothing being more unhealthy than a close stove in a bedroom.

I do not approve of open windows at night, but there is a very safe and easy method of supplying a constant current of pure air in a room, which cannot but be beneficial at all seasons of the year, especially if many people sleep in the same room. This plan consists in having a planed board, about six inches wide, cut to the exact size of the inside of the window-frame, and so placed that the raised lower sash shall rest upon its upper edge. By this means, ample space is left between the upper and lower sash to admit of a strong current of air, which, being directed upwards, cannot possibly create a direct draught, which is always pernicious.

Every bedroom should have direct

COMMUNICATION WITH THE OUTSIDE AIR,

Not only for the purposes of ventilation, but also for the admission of light. No room is fit for a human being to sleep in that has not been freely exposed to the light and air during some portion of every day in the year. And yet how often do we find, even in very pretentious

houses, rooms which are almost dark, the only light which penetrates them being that which is borrowed from another; and even this, very frequently, an ill-ventilated and badly lighted room.

Such dens are nothing but hotbeds of disease and filth: and to compel children and young growing people to sleep in such places is nothing short of a heinous crime. Such a proceeding not only stunts and retards their growth, and favors the development of latent disease, where the tendency already exists, but it even sows the seed of disease, in many of its worst forms, in constitutions otherwise healthy. Scrofula, rickets, and even pulmonary consumption, may be easily started in this way.

Moreover, it is a very great mistake for too many people to sleep in the same room, especially in winter, on the supposition that it will be warmer; for ventilation is actually more needed in the winter than in summer, if only for one of very many reasons, that a far greater quantity of oxygen, or life-giving principle, is consumed in

the production and maintenance of animal heat in the colder than in the warmer portions of the year.

Another very frequent, though scarcely suspected, cause of ill-health in houses, is the

DARK CLOSET.

Although every house should be well supplied with closets, they should always be light and airy; and under no circumstances whatever should they ever be dark and close. Dirty clothes and sundry other kinds of filth are often stowed away in such places, and become the source of malodorous and malarious influences, often resulting in serious diseases, especially those of a typhoid type.

Closets should be so arranged that, in addition to their ordinary ventilation, there should be cross-ventilation into the open air, between the closet and the rest of the house. This can only be thoroughly accomplished by special projections, arranged for in the original plan, for this

particular purpose. This would be easy enough where the house is detached, but not quite so readily provided for in double or terrace-houses, excepting in the rear. Where this cannot be done, every closet should have a glass door, and over it, a venetian ventilator, having the slats directed upwards towards the ceiling, and, wherever possible, there should also be a window opening directly on the outside air.

Another most absurd and mistaken notion, but one that is almost universally practiced among all classes, is that of sacrificing the very best part, if not, indeed, almost the whole of the main floor of the house to that abortive of real home life, that destroyer of all social comfort, that barn-like waste, commonly known as the

DOUBLE PARLOR.

Such an arrangement is bad enough even in a moderately large and expensively furnished house; but it is utterly out of place in those intended for the working classes. It is, of course, perfectly right and proper that the work-

ing man should have a comfortable sitting-room; and that he should furnish it as well as his means will allow. But it should be a room in daily use, and not one that is shut up almost from one week's end to another; one in which all the furniture is covered up, and into which not even so much as a single ray of pure sunlight is ever allowed to penetrate, for fear of fading the carpet, or spoiling the furniture. What an absurd notion! It would be infinitely better to do without such a room altogether, than so to abuse it. A room such as this, would be enough to cast a moral and a physical chill over the whole household. You can always buy furniture, but you cannot buy health. It certainly cannot add to anyone's real wealth and comfort to be possessed of goods stowed away in such a manner and in such a place.

In order to secure a perfectly healthy home, every room in the house should be fully and freely exposed to fresh air and sunlight for some portion, at least, of every day in the year.

Next in real importance to a good bedroom, in every house, stands the

KITCHEN.

This is especially so in the home of the working man. A well-appointed kitchen should be large, light and airy; and abundantly provided with good ventilation. No food, however plain, can be properly prepared for use in a dark and dirty hole such as frequently stands in the place of a good, wholesome kitchen; aye, and in so-called respectable houses, too. Besides, unless there is a constant and abundant supply of pure fresh air, the condensed and concentrated smells of a thousand meals will rankle on the walls, tainting the food, nauseating the stomach, and blunting the appetite of even a hungry working man. The absence of fresh air is one of the principal reasons why even the best of cooks can, scarcely ever, enjoy the fruits of their own labor. Furthermore, an airy, roomy, well and cleanly kept kitchen will, for the working man, obviate the

necessity of building and furnishing a more expensive and exclusive dining-room.

It is now time to speak of a most important point in the building of houses of every kind, and for all sorts of people. I allude to

THE PLUMBING AND DRAINAGE.

These matters should not only be laid out and specified in the original architectural plan, but there should also be a special and independent plan of every pipe and drain in the house, and such a plan should be always had, and kept on hand, by the owner of every house, be it great, or be it small.

The pipes and drains should always be laid in such a manner that they may be easily got at in case of accident, or needed repairs; and, where practicable, they should always be on the outside of walls, and above the ground; and every covering which may be necessary, should be fastened with screws instead of nails, that they may be the more easily reached in case of need.

In the carrying out of any plan which may be decided on, notwithstanding the fact that plumbers' charges are always high, it is economy of the very worst kind to be niggardly or close in providing for these items. None but thorough tradesmen should ever be employed; and none but first-class work should ever be called for, or accepted. By far too little regard is paid to this all-important matter. Many a man has had bitter cause to repent either his own parsimony or the villainy of some dishonest tradesman. The house which he flattered himself would be a healthy and a happy home for himself and family, has, only too often, turned out to be not merely a hotbed of disease, but also the house of death to those he held most dear.

A few words of special comment on the several house-plumbing needs will not, I think, be out of place right here. Nobody will, for a moment, deny that

BATH-ROOMS, STATIONARY WASH-STANDS, AND EVEN INSIDE WATER-CLOSETS,

Are not only conveniences, but may even be considered as absolute necessities. This is perfectly true, and equally applicable to the dwellers in all kinds of houses; always provided that, in the first place, they be properly constructed, and thoroughly plumbed; secondly, that they be properly used; and thirdly, that the person desiring to have them can well afford to pay for them. We will consider these matters in an inverse order, beginning with the last; this being of the most essential consequence in the construction of houses for the working classes.

If a laboring man has the means, I see no earthly reason why he should not have as good a house as anybody else; and one supplied with all the comforts and conveniences of modern social life. A proper spirit of emulation is always right, but if once allowed to overstep the bounds of prudence it at once becomes fraught with the most direful consequences. The con-

stant struggle to be as good as one's neighbor, and in so doing, going beyond one's means, has been the cause of ruin to hundreds of thousands; and is one of the most potent causes of poverty in this free country. So that, as is aforesaid, if he can well afford to have these things, by all means, let him have them. But, if he does, let him take especial care that they are properly used. No slops, or dirty water of any kind should, on any consideration, ever be emptied down the waste-pipe of either a bath-tub or stationary wash-stand; but there should always be a

WELL TRAPPED SINK UP STAIRS,

Into which all slops may be thrown: it should also be supplied with a tap from which clean water may be drawn for cleansing purposes: and, even after the water, which has been used in either of them, has run away, the tap should always be allowed to run for some considerable time, not only thoroughly to wash out the pipes, but also to take care that the traps are filled with nothing but pure water.

The vessels themselves must always be kept scrupulously clean. Frequent inattention even to such apparently trifling matters as these will very soon contaminate and render unhealthy even the best constructed and well appointed house.

All this care and attention, however, will be of little avail unless everything in connection with this branch of the furnishings be finished in thoroughly first-class style. It would be immeasurably better to do without them altogether than that cheap materials and poor work should take the place of the genuine article. It would be incomparably better alike for the pocket and for the health.

This is especially the case if it should be decided to have an

INSIDE WATER-CLOSET,

For, unless these are thoroughly and properly constructed, and well looked after, they are certain, sooner or later, to prove themselves to be a bitter curse, wheresoever they may be. In the

proper construction of such places, the remarks, previously made, in reference to house closets, apply with tenfold force to inside water closets. But, in addition to all the requirements there pointed out, there should always be a pipe leading up from the waste clear through the roof of the house; care should also be taken that it be so placed that any effluvia issuing therefrom shall not be drawn into any window, or down any chimney of the house, and this pipe should always be surmounted by a revolving hood.

Nevertheless, and notwithstanding all that has been said, I certainly think that, for many reasons, not necessary here to particularize, the working man's home would be much healthier without an inside water-closet.

But there must be one outside; and a great deal more care and attention must be bestowed upon its construction than is usually the case in such matters. In the first place, it should be so situated as to be easily accessible; its approaches so protected from the inclemency of the weather,

that it may, with comfort, be used at all seasons of the year. Secondly, the vault itself should be so constructed that it may always be kept perfectly clean. It should be built of hard burned brick, laid in strong water-lime, and well cemented within, so as to be perfectly water-tight. This vault can easily be kept clean and sweet by having the main house drain run directly into and through it into the common sewer, or other receptacle. The opening into the sewer should be of good size and properly trapped; said trap opening outside into the sewer; so that in case of heavy rains or flooding from any other cause, it will be impossible to force this trap. Thirdly, the seats should be well made and properly covered; and a pipe should go up from the vault through the roof, and it should be surmounted with a revolving hood.

Water-closets may be arranged in several other ways; but, from practical experience, I know that the one just recommended and described, is not only the simplest, but, if the house drain and

sewer outlet are properly arranged, it is also most perfect in operation, and it is almost entirely odorless all the year round. The vault, however, must be dug sufficiently deep, the fall sufficient, and the place so sheltered that there shall be no freezing of its contents, and to allow of free ingress and egress of water, even in the coldest of weather.

Moreover, this arrangement has the great advantage that, unless things are thrown in which ought not to be, and which, from their size and insolubility, cannot be washed away, and around which accumulations may gather, it is self-acting, and cannot, very well, either get out of order itself, or, by carelessness or neglect, be put out of order, and thereby rendered obnoxious to the senses and injurious to the health of those who use it, a point of the utmost importance.

All traps used in house-plumbing or drainage should always be double, as single ones are very liable to be forced by even a very moderate

pressure of gas. They are also likely to become inefficient through syphonage, etc., etc.

Every house should be provided with a

PROPER SINK,

Which discharges its contents through a pipe, trapped in the above-mentioned manner, and opening outside of the house, not into a drain, but over a drain-grating, thence through drain-pipes running into the common sewer, or other natural or artificial outlet. Before, however, this drain reaches its final outlet, there should be an absolute disconnection, by means of a suitable trap, through which all the house sewage must pass; there should also be an opening in the drain to the outside air, on the house side of the above-mentioned trap, to provide for the escape of any sewer-gas which may, possibly, force this trap; and also to provide the necessary ventilation for the drain itself. The rain-water pipes should always open over a drain-grating, unless it is deemed expedient to construct a cemented reser-

voir to preserve such water; in which case the pipes would, of course, lead directly into it.

A GOOD WIDE VERANDAH

Should, if possible, surround the entire house. If this cannot be, there should always be one in the front and at the rear. It affords great protection against the weather, at all seasons of the year, and keeps the ground immediately around the house perfectly dry, thereby greatly lessening the chances of dampness within. Moreover, it is a source of pleasure and convenience in many other ways.

I think that I have now described, in the briefest possible way, consistent with a thorough comprehension of the subject, all that is necessary to constitute a thoroughly healthy home. In so doing, I have confined myself to such things as are absolutely needful; and all that I have advised is not only exceedingly practical and practicable, but easy of accomplishment and at a very moderate cost, especially if everything is planned and carried out at once.

I have no faith in building houses by piecemeal. The circumstances attending such an arrangement are scarcely, if ever, conducive to heath, the ultimate expense is always greater, and the accomplishment of details much more difficult. In my opinion, it would be far better for a workingman to wait until he was able to build rather a larger house than he then needs, than to build one that is just large enough, or perhaps only barely that, and have to enlarge it afterwards. Before concluding this part of the subject, however, there is yet one more important thing to be noticed which, though last, is by no means the least important requisite to constitute and maintain a thoroughly healthy home. For, unless there be

AN ABUNDANT SUPPLY AND A BOUNTIFUL USE OF HOT AND COLD WATER,

With a plentiful supply and free use of soap, no house, however well supplied and appointed in other respects, can long remain a healthy home for any class of people. These remarks apply,

with equal force, to the house itself and to those who dwell therein. In so far as the latter are concerned, it matters not whether there be a stationary bath-tub in the house or not, but it is a matter of the utmost consequence to them, in so far as their health is concerned, whether they keep themselves clean or not.

Every one, old or young, should sponge themselves over, from head to foot, at least once every day in the year. Instead of taking cold by such means, as many people suppose, it is one of the most powerful and reliable means of preventing just that very thing; besides, toning up and invigorating both body and mind.

What exquisite pleasure a laboring man, tired, begrimed and weary with his day's toil, would enjoy if, as soon as he entered his house, he stripped off all his clothes and gave himself a thorough wash from head to feet, in water in which a little ammonia had been dissolved; and, after rubbing himself thoroughly dry, he put on fresh clothes from the skin outwards. Fatigue

would vanish like a dream; his mind and spirits would be aroused and cheered; fitting him alike for the peaceful enjoyment of his family circle, and the cultivation of his mental faculties; which latter is of just as much vital importance to him as the conservation of his physical strength.

If every workingman in the land would only follow out, in its entirety, this simple piece of advice, and put into practice the latter clause, the realization and accomplishment of which is within the power of even the very poorest of the poor, a tremendous stride would thereby be taken towards the elevation of the working classes, and proving, beyond dispute, the true dignity of labor.

PART SECOND.

"WHOLESOME FOOD."

Having described the needed accessories to a healthy home, we will now pass on to discuss the subject of

WHOLESOME FOOD.

Man not only needs a healthy home, but he also requires healthy food. He cannot live on air alone, but needs something not only to nourish and support his bodily frame, but also to supply the demands which are constantly being made by the wear and tear which is ceaselessly going on in his organism. Such being the case, the very first question which naturally presents itself is, Of what should that food consist? In answer to this all-important question, I would most unhesitatingly reply that, a due proportion of

ANIMAL AND VEGETABLE

Food is that most conducive to the health of man.

Comparative anatomy has shown that the digestive apparatus in man is about midway between the herbivora and the carnivora; or such animals as live entirely upom vegetables, and those which subsist upon flesh alone. It would, perhaps, be more correct to say that it is a combination of the two, which fact goes far to prove that man was intended to make use of both.

But all food is not, at all times, wholesome. The old rule that "circumstances alter cases" is equally applicable here as elsewhere. It is therefore, to these special circumstances, specially affecting this subject, that I would, first of all, direct your especial attention.

Chief among these is the influence of the

CLIMATE,

And the temperature of the place, in which we live, and also the season of the year. This is a

matter of far more consequence than most people are apt to imagine. Many suppose that they can, with equal propriety, live and thrive upon the same kind of food in places situated near the equator, and in those not far distant from the north pole. Still more people imagine that there need be no material difference in their diet in summer and in winter. But these are very great mistakes, and thousands there are who have found it out, to their great and grievous loss.

The general rule, in reference to this matter, is that the hotter the weather, the less need is there for animal food: and consequently, the greater should be the proportion of farina, fruit and vegetables consumed.

The reason is that, the colder the weather, the more condensed is the atmosphere, and consequently, a larger amount of animal food is required; not only to neutralize the inspired oxygen, by supplying sufficient carbon for this purpose, but also enough for the supply and main-

tenance of internal animal heat, which is mainly attributable to the combustion of carbon contained in the blood, in oxygen supplied to the lungs in the air we breathe.

Most people will admit that both

ANIMAL AND VEGETABLE

Food are necessary; or, at all events, that an admixture of the two is preferable to either of them used exclusively; but as a rule, by far too much animal food is consumed by people of all classes in the community.

This is especially true in this country, where meat forms a principal part of every meal taken during the day. Now, if this was at all necessary, or even beneficial, one could not fail to see it in the appearance of the people generally, for the principal indications of a dietary chiefly composed of meat are not only an increase in size and weight, but also a robustness of physique and a florid complexion, showing thereby, not only that blood was made in very large quantity, but also very rich in quality.

I ask, Is such the appearance of Americans in general? To this I unhesitatingly answer, No!

On the contrary, the great majority of the people of this country, are pale-faced, sallow-skinned and thin. I freely admit that there are many other causes at work which may, more or less, contribute to this latter result. Nevertheless, I am fully persuaded that a too free indulgence in the use of animal food, without the proper correctives, is certainly, and by far the most important cause of this decidedly American characteristic.

It is perfectly true, however, that this description of food is highly nutritive: nay, even more so, weight for weight, than farina, fruit or vegetables; but the question of mere nutriment should not, at all times, be paramount to every other consideration, for be well assured that disease will inevitably follow, if the system be overcharged even with nutriment.

Before I proceed to describe the various kinds of food, and the best methods to be pursued in

its artificial preparation, it would, perhaps, be as well if I introduced a brief description of the natural method. For however wholesome or nutritious any food may be, or however well prepared by art, it will fall far short of its available uses, and the purposes for which it was designed, if it be not first digested and afterwards thoroughly assimilated. I shall, therefore, at once proceed to give a short account of the various processes by which these all-important ends are to be accomplished.

DIGESTION AND ASSIMILATION.

In the first place, then, the food enters the body by the mouth, there to undergo a process of grinding and comminution. This operation is effected by the teeth; and it is a matter of great importance that it should be thoroughly performed, otherwise each subsequent part of the digestive process will either be very much retarded, or even more serious trouble may result.

Besides being reduced and subdivided by the teeth, the food undergoes even a still more important process before it leaves the mouth; it becomes mixed and diluted with the

SALIVA,

A liquid secreted by a number of glands, and poured out by numerous orifices into several parts of the mouth.

This saliva contains a peculiar organic compound called

PTYALIN,

Which has the property of converting starch into sugar; the only way in which starch can be assimilated and be made use of in the organism. Now, as this ptyalin is found only in the saliva, and as it is absolutely necessary that every particle of food containing starch should be submitted to the influence of this compound, in order that it may be converted into sugar, does it not prove that it is indispensably necessary that the food should be thoroughly mixed with

this saliva? Most assuredly it does. And yet, how utterly careless or ignorant of this fact are the great bulk of the people of all classes in this country.

The utter disregard of this necessity is the most potent cause of one of the very worst forms of dyspepsia, of which so many thousands suffer and are suffering.

Another very foolish and injurious custom, almost universally practiced in this country, is that of swallowing water, or some other liquid, with every mouthful of food that is taken. This is entirely unnecessary and perfectly useless, for nature has provided, in a bountiful supply of saliva, not only all the fluid that is necessary for the mere moistening of the food, but she supplies such a liquid as contains, within itself, all that is necessary to make the food pleasant to the taste and render it fit for reception in the stomach, into which receptacle it is forced through the gullet by the spasmodic action of the muscles of deglutition.

Here the food meets with a solvent fluid, of an acid reaction, and containing another peculiar organic compound called

"PEPSIN,"

Whose office it is to dissolve the gluten of vegetables and the fibrin of meat, and all substances containing albumin and gelatin.

By the combined action of the saliva and pepsin, and the acid gastric juice, all the heterogeneous articles composing a meal (with the exception of the fat, which is merely divided into minute globules, preparatory to subsequent action elsewhere) are reduced to an uniform pulpy fluid called

"CHYME."

It is thence transferred, through a narrow opening, at the lower end of the right side of the stomach, called the

"PYLORUS,"

Into the "duodenum," as the first twelve inches of the small intestines is called, from the Latin

word "duodecem," which means twelve. The word "pylorus" is derived from two Greek words, πυλη, pule, a gate, and ουρος, ouros, a keeper, so that the whole word means gatekeeper —and so jealous of his charge is this gatekeeper that, if he can help it, he will not allow anything to pass his portal in a crude or imperfect state.

So that if, through improper mastication or imperfect solution in the gastric juices, any portion of the food remains lumpy, or undigested, he will endeavor to intercept its passage through his gate; and such a commotion does he make that irritation of the muscular coats of the stomach and diaphragm is set up, vomiting ensues, and the offending matter is thus expelled from the body; but if this does not take place, all the horrors of acute dyspepsia are the inevitable result.

If, however, this is frequently repeated, if he is thus often annoyed, he becomes callous, and eventually gives up, and a train of symptoms then ensue too numerous and distressing to particularize.

Having passed through the pylorus, the chyme passes onwards through the duodenum. In its passage it comes in contact with, first, the

BILE,

Secreted by the liver. This liquid reacts upon it, neutralizes its acidity, and separates the glycerine, or sweet portion of the fat, leaving the oily part to be acted upon by the

PANCREATIC JUICE,

Secreted by the "pancreas" or sweetbread, before which it passes after leaving the biliary duct.

This pancreatic juice also has a peculiar organic principle called

"PANCREATIN,"

Whose office it is to emulsify fat, and so render it fit for absorption and subsequent assimilation.

The pancreas is an organ which ought to be well known, and thoroughly understood by every well-educated medical man: and yet, its office, if

not, indeed, its very existence is, too frequently, ignored; and the unfortunate liver is too often blamed for faults of which it is perfectly innocent. Many people suppose, and are frequently told by the doctor, that their liver is out of order, whereas in reality, it is the pancreas which is at fault: and the reason is that people eat by far too much fat, in the shape of butter and lard, and use by far too much grease in the preparation of their food, so that the poor unfortunate organ is not only overworked, but the fat is presented to it in such a manner as almost to preclude the possibility of properly getting rid of one lot before another is presented to it for action. This is another of the manifold injuries done to unoffending organs by the hurried manner of eating, and consequent imperfect preparation of the food, both in the mouth and after it leaves it.

THE DUODENUM

Also secretes a peculiar slimy mucus, which has the power not only of assisting the pancreas in

the emulsion of fat, but it also completes the conversion of any particles of starch which may have escaped the action of the ptyalin and gastric juice.

The chyme, having been acted upon by both of these fluids, assumes a milky appearance, and is now called

"CHYLE,"

Which now passes slowly onwards through the convolutions of the small intestines: in its passage through which, the nutritious portions are absorbed, or taken up by innumerable little vessels, opening out upon the inner coat of the small intestines.

These vessels are called

LACTEALS OR ABSORBENTS,

And are, at first, exceedingly minute, but by conjunction and ramification with others larger and still larger, eventually they all unite in one grand reservoir, called "*receptaculum chyli*," or receptacle of the chyle.

From this reservoir a pipe, called the "*thoracic duct*," proceeds, through which the chyle passes upwards into the left "*subclavian vein*," situated just under the left collar-bone. By it the chyle is conveyed to the right side of the heart. In its passage thither it meets and becomes mixed with the black or venous blood, together with which it is carried to the lungs by the pulmonary artery. Here the whole becomes vitalized, and rendered fit for the purposes of nutrition by the absorption of oxygen, contained in the air cells of the lungs, giving out, in return, carbonic acid gas.

It is now carried, by the pulmonary veins, to the left side of the heart, by which it is projected into the "*aorta*," or main artery, and thence distributed over every part of the body.

Having attentively perused this briefly detailed account of the process of digestion and assimilation, one cannot fail to perceive the absolute necessity for the due performance of each and every successive stage of the process: and the

remembrance of this fact cannot be too frequently or forcibly impressed upon the minds of all, high and low, rich and poor, alike; for, as has been aforesaid, unless this is thoroughly done, even the very best and most wholesome and nutritious food will not only be rendered unwholesome and injurious, but at best, it will but half effect the good of which it is capable.

I shall now describe the various articles fit for food for man, especially emphasizing such of them as are peculiarly adapted to the wants of the working classes.

I shall also describe the best methods of preparing them for use, not only with a view to the strictest economy, but also to the development of their nutritive qualities, and rendering them more attractive to the eye and pleasant to the taste.

Inasmuch, then, as food of all kinds is, or ought to be, composed of a due admixture of animal and vegetable substances, and as bread and meat are the staple articles of diet, I shall, in

describing the relative merits of the products of each kingdom, use Wheat as the example of the one, and Beef as that of the other: and having discussed these matters in general, I shall afterwards take them in detail. I shall, first of all, consider the merits of

ANIMAL FOOD.

The nutritive principles in all kinds of meat are Fibrin, Albumin, Gelatin and Fat, of which Fibrin is by far the most important. All kinds of meat also contain a variable amount of chemical salts, especially phosphates. Fully one-fifth of the entire weight of a healthy piece of beef consists of fibrin: and in proportion as this substance abounds, so, in a like degree, does the value of this particular flesh increase as a nutritive and life-sustaining material. The other constituents are very wholesome, nutritious and easily digested, except fat, which, as I have before said, not only requires to be properly comminuted in the mouth and stomach, but the liver

and the pancreas must also be in perfect working order. Nevertheless, this latter substance is of the greatest importance in the animal economy, for not only does it form the principal ingredient in the productions of internal animal heat, by the combustion of the carbon which constitutes its chief ingredient, but the oily portions are also of especial value as food for the brain and nerves.

Meat is usually cooked in five or six different ways, standing, according to merit, in the order in which I shall place them, namely,

BAKING, BOILING, BROILING, ROASTING, STEWING AND FRYING.

The last-named is the worst of all possible modes of cooking, chiefly because the fat which is necessary to the process is, in a great measure, decomposed, and thereby not only converted into a very unwholesome article itself, but it also injures whatever is cooked in it.

There are, however, exceptions to this, as to every other rule, whereby, if properly con-

ducted, even frying may be made a wholesome method of cooking; nay, even the best adapted to certain kinds of food, as will be shown in their proper place in the sequel. But I repeat that frying, as usually practiced, not only injures the food operated upon, but also the stomach which has to digest it.

To whichever of the above processes meat is subjected (with the single exception of stewing) the heat, at first, should always be very intense. For instance, if you want to

BAKE

A joint of meat, the oven should be very hot when the meat is put in. By this means the outside fibres of the meat are at once contracted and the pores closed, so that, instead of oozing out into the dripping-pan, the natural juices of the meat are retained. This protective process is usually accomplished in a very few minutes; when it is, the heat may be slackened and the meat be allowed slowly to cook in its own juices.

Some water and a little dripping should, however, be placed with the meat in the pan, when first put into the oven; with this and what flows out from the meat, the joint should be constantly basted, and twenty minutes for every pound of meat should be the time allowed for cooking.

BOILING

Requires precisely the same directions respecting the heat and the time allowed for cooking, thus:

To properly boil a piece of fresh meat, it should be immersed in water which is boiling furiously over a good hot fire. The same ends are effected and the same precautions needed as those just described in baking, excepting, of course, that it does not require to be basted. When, however, you wish to boil a piece of salted meat, you should always put it into cold water, and allow it slowly to come to a boil, and continue to boil slowly. This will, to a great extent, freshen the meat, and make it eat much more tender. In any case, however, salt meat should always boil slowly.

When meat which has been cooked in either of the above ways, and the directions faithfully followed, is cut into, the luscious juices rush out into the dish in a perfect torrent, and the meat itself is just as different from the dried up, wasted trash so frequently seen, even upon the best of tables, as "chalk is from cheese;" and of itself, without piquant sauce, or relish of any kind, even the very sight of such meat is enough to make anybody's mouth water, and to provoke an appetite in the most confirmed and miserable dyspeptic.

Such meat as this contains within itself all that is necessary to build up and maintain robust and vigorous health, and if the partaker thereof will only do his simple duty, by leisurely performing the various processes of nature, previously pointed out by me, when speaking of digestion, the pleasure of eating it will not be followed by subsequent regret; on the contrary, invigoration and refreshment will be the only result.

BROILING

Comes next; and, in order that this very wholesome mode of cooking should be successfully accomplished, the broiler should be set over glowing coals, and the meat should be turned over almost as soon as it has been put upon the broiler. This turning should be repeated several times in succession, until the outside fibres have contracted and the pores closed; the meat should then be allowed, slowly, to cook in its own juices, occasionally turning it until it is thoroughly done, which will be in from twenty to thirty minutes, according to the size and thickness of the steak. If this operation be carefully watched, there will not be the slightest fear either of burning it up on the outside or drying it up within. A steak, cooked in this manner, when cut into, will never look red, while it is hot, but the color of the juice, which gushes out of it, will be a beautiful brown cherry red, which is, in reality, cooked gravy, and not blood. Moreover, the flavor and aroma

of such a steak will be so delicious that anyone, who tastes such an one for the first time, will hardly believe that he is eating common beef-steak.

You frequently hear folks talking of rare beef-steak; this, when really so, is good enough for those who like it, but what is usually called rare is, in reality, raw, and in my opinion fit food for dogs, and not for men.

The method adopted to spoil a good steak, in this shameful manner, is to put it on a broiler, over a very hot fire, and allow it to remain until one side is thoroughly burned, then it is turned over, and the other side is allowed to burn likewise. Butter, pepper and salt are then put on, and it is dished up and sent to table.

When such a steak as this is cut into, not a drop of juice runs out, the inside is of a purple color, and scarcely even warm, the burning of the outside having been accomplished too quickly to allow of sufficient time for the fire to have penetrated the whole thickness of the meat. If,

by chance, a steak so treated should happen to be thin, the substance resulting would be something akin to scorched sole-leather or partially charred wood, and would be equally nutritious and digestible.

ROASTING

Is a process very rarely practiced nowadays, but if properly done, is the very best and most wholesome way of cooking any fresh meat. The meat should be spitted and placed before a good fire, the jack should be so set as to continue a slow and uniform turn, and the meat should be well and constantly basted. The time allowed is about the same as that for baking.

STEWING,

Properly so called, is, at once, a very wholesome and economical method of preparing animal food. The meat to be stewed should be put into a pan with a very little water; pepper, salt and vegetables, such as carrots, turnips, onions, etc., sliced very thin, should then be put over it, and

the whole covered down with a closely-fitting lid. The stewing-pan should be so placed on the stove that its contents can never reach the boiling point, but should slowly simmer for from four to six hours, according to the quantity and thickness of the meat. Even the toughest piece of beef, treated in this way, will not only become perfectly tender, but will also be wonderfully appetizing: so much so, indeed, that stewed beefsteak invariably forms one of the side dishes at every great dinner, whether it be given in a public place or in one's private house.

We will now, for the present, leave animal food and proceed to discuss, in a general way, the merits of

VEGETABLE FOOD.

The principle elements upon which vegetable nutriment depends are Starch, Gluten, Sugar and Oil. All the cereals, such as Wheat, Oats, Rye, Indian Corn, etc., contain the first two and the last, while fruits and vegetables proper chiefly supply the third of the above-mentioned elements.

As beef is the king of meats, so is wheat the queen of cereals. Nevertheless, there is less difference, in nutritive value, between wheat and the other kinds of grain, than there is between beef and other sorts of meat.

STARCH

Forms the bulk of all kinds of grain, and it is to it, chiefly, that all of them owe their nutritive and life-sustaining qualities. Gluten, however, plays very nearly, if not quite, as important part as starch. This last substance is very similar to, and answers precisely the same purposes in the vegetable world, that fibrin does in the animal kingdom; but starch and sugar, by their conversion into gum and glucose, in the process of digestion, become more nearly allied to the former, and so are enhanced in their nutritive qualities.

Nevertheless,

GLUTEN

Is, of and by itself, a most important element in nutrition. It is, in fact, the vegetable blood and

muscle producer, and in its absence, the other elements would be insufficient to maintain vigorous bodily health.

This is made manifest by the fact that those who live upon baker's bread, and articles prepared exclusively from the so-called fine white flour, from which nearly all the gluten has been removed, in the process of grinding and sifting, never look as well, nor are they really so strong, as those who live upon food prepared from the whole grain. Good, wholesome

BREAD

Should always be made from the whole grain, or from such as has only had the thin outside husk removed: for it is in the outer circle of the grain, immediately next to the husk, that nearly all the gluten is found, although it is, more or less, distributed over the whole seed. Bread made in this way will not be quite so white as that made from fine flour, but this should not be considered for a moment; but, unfortunately, it

is, and so adds one more to the already innumerable instances in which real worth is sacrificed to deceitful appearances.

Apropos of this last remark, it is not generally known that small grains of wheat are better than large ones. It is, nevertheless, a fact. What are commonly known as "tailings" contain much more real nutriment than fine wheat, and, if properly cleaned, are worth half as much again as the larger. This fact is well understood and appreciated by the thrifty farmer, but not by the public in general, or even the average wheat-grower; otherwise, "chicken-feed" would bring a much higher price than it does to-day, and chickens would get but a very little of it.

There is very nearly an absolute resemblance between animal and vegetable

FATS.

In composition, they are almost identical. The offices each fulfill, in the animal organism, are also alike, and precisely the same requirements

are necessary to the proper digestion and assimilation of both.

Although, as I have before said, there is very little difference in nutritive value between the cereals, there is, nevertheless, a great difference between them as to adaptability. For instance, wheat and rye are almost identical in their elementary composition; they may also both be used indiscriminately in the manufacture of good wholesome bread. Whereas, Oats, Barley, Indian Corn, and many other eatable seeds cannot be so used, but are either eaten as porridge, or made into so-called cakes. Furthermore, there is a difference in the quantity and quality of the Gluten and the Fat contained in each.

Of all the common cereals, Oats contain the largest amount of gluten, while Indian Corn has the largest proportion of fat. Oats, however, are not very far behind even in this particular; hence, it is that oatmeal is so generally and extensively used. Combined with milk, oatmeal contains every essential, not only for the preser-

vation of life, but also for the maintenance of sound and vigorous health.

The inhabitants of the Highlands of Scotland are a standing example and proof of this fact. These people live almost entirely upon oatmeal and milk; and, notwithstanding the fact that the climate of the Highlands would, by most people, be considered almost the worst in the world, nevertheless, Highlanders are among the healthiest, hardiest, strongest and longest-lived of any people under the sun.

There is yet another point of similarity between animal and vegetable food, to wit: they both contain a greater or less amount of chemical salts, especially phosphates.

If, therefore, the foregoing remarks have been attentively read and remembered, one cannot fail to have observed the close resemblance between the essential constituents of the food products supplied by the two great kingdoms of nature. So great is this resemblance, indeed, that it would be quite possible for man to live upon either to the complete exclusion of the other.

In proof of this, we have only to remember, on the one hand, that the inhabitants of Greenland, and other places near the North Pole, subsist entirely upon fish, flesh and oil; and on the other hand, that the inhabitants of the tropics live, almost entirely, upon fruits and vegetables.

These are the two extremes, in every sense of the word. As such, both of them are right and proper, but for the great majority of mankind the middle course is best, and certainly more conducive to health and longevity.

We will now run straight along, seriatim and in detail, through the list of articles commonly used as food by man, and point out any peculiarities which specially befit any of them for use by the working classes in particular. This time we will commence with

VEGETABLE FOOD.

WHEAT.

This grain may not only be used as bread, but it may also be cooked as porridge, for which latter purpose it simply requires to be cracked, or what is perhaps still better, to be dried and then rolled out flat.

RYE

Is generally made use of simply as bread. This description of grain may, like wheat, be made into excellent bread, by using flour made from the entire seed; or, if preferred, it may be mixed with an equal quantity of fine flour.

TO MAKE GOOD BREAD,

Put say eight pounds of flour into a large pan; then dissolve one cake of either dry hop yeast, or the same quantity of compressed yeast, in about one pint and a half of warm water; put this into a hole made made in the middle of the flour in the pan, and, with a wooden spoon, stir gently round

until a soft batter is formed in the midst of the flour; sprinkle a little dry flour over this, cover the whole with a cloth, and set it in a warm place to raise. If dry yeast is used, it will be better to set the dough over night; but if compressed yeast be employed, the bread must be set in the morning, and it will be ready to bake in the afternoon of the same day.

When the dough has sufficiently raised, which, if it was set over night, will be early in the following morning, but if set in the morning, will be in three or four hours, add sufficient lukewarm water to make a good stiff dough; knead it thoroughly, cover it up, and set it aside to raise a second time. In about two hours it should be ready to knead again. When this is done, mould it into loaves and set it aside to raise a third time. In a short time it will be ready to put into a good quick oven. Bake for two hours, or until it is thoroughly done.

If the flour used was that made from the whole seed, without any admixture with fine

flour, it will take a little more yeast, a little more water, more time to raise and a little longer to bake.

If the above instructions be minutely and faithfully followed, the result will be twelve pounds of good, wholesome and highly nutritious bread: such bread as every laboring man should use, and every laboring man's wife should be able and willing to make. It matters not whether he labors with his hands or with his head, for such bread as this will supply the nutriment, not only for blood, bone and muscle, but also for brain and nerve. Whereas, the disgusting and useless trash usually consumed, contains neither. Tolerably nutritious bread may, indeed, be made from so-called fine flour, but none to be compared with that above described. But that which bakers usually supply, and that which people commonly use, has had all the goodness worked out of it, and is very little better than yeast itself. To be compelled to live exclusively upon such trash would surely end in death by starvation by any one who chose to try it.

OATS AND INDIAN CORN

Are, principally, used as porridge, and used in this way are exceedingly wholesome, nutritious and strength-sustaining, especially oats.

TO MAKE GOOD PORRIDGE,

Whether of cracked or crushed wheat, oats or Indian-meal, it should be partially cooked over night, for neither of them can be thoroughly done in less than three hours, at least. It would even be much better if four hours were allowed, for, unless all such things are thoroughly cooked, not only are they less wholesome, but they are also much more difficult to digest. Crushed wheat and fine oatmeal, however, are an exception to the above rule as to time, for they may be thoroughly cooked in from one-half to one hour.

One pint of porridge, properly made from either of the above materials, eaten with one pint of pure fresh milk, will make a far better and more sustaining breakfast, for any working man, than all the eggs and beefsteak which he

can cram into him. This kind of food would also be infinitely better, both for his wife and his children.

If people in general would eat more porridge, we should very soon see the beneficial results, in healthier and stronger women, and in jolly, fat and wholesome looking children, instead of the poor, weak and miserable looking objects of pity one so often sees around.

BUCKWHEAT CAKES

Are wholesome food, especially in winter, and may be made as follows: To a pint of buckwheat flour add a heaping teaspoonful of baking powder and a teaspoonful of salt; mix well together, and add a pint of cold water, or sufficient to form a batter; mix well and pour out on to a hot griddle and bake immediately.

If made with yeast, proceed as follows: Dissolve a quarter of a cake of yeast in a teacupful of warm water; add this to one pint of buckwheat flour, stir in lightly, and set the vessel containing it in a warm place to raise over

night. In the morning dissolve half a teaspoonful of saleratus in a little water, add this to the batter; mix well and bake immediately on a hot griddle.

RICE,

Though exceedingly wholesome, is not so well suited to the wants of the workingman, as it contains the least amount of gluten, or muscle-producing element, of any of the cereals; it is also very deficient in fat. It is, however, very well adapted to those who work indoors, and, when eaten with plenty of fresh milk, it forms a very light, wholesome and nutritious diet for folks of all classes.

PEAS AND BEANS,

Form an exceeding wholesome and sustaining kind of food, and are especially adapted to the needs of the hard-working man. Inasmuch, however, as they are not usually eaten alone, I shall pass them by, for the present, to mention them again when we describe the various kinds of soup.

VEGETABLES PROPER.

Of these, the best known and most extensively used is the common potato. But, strange to say, "but no less strange than true," that, weight for weight,

THE POTATO

Contains less real nutriment than almost any other ordinary vegetable. It contains an abundance of starch, but is almost entirely devoid of either gluten or fat; hence its deficiency as a muscle-producer or strength-sustainer. Nevertheless, when eaten or mixed with other articles abounding in these latter requisites, it becomes an exceedingly useful article of food for all classes and in all climates.

CABBAGE, CARROTS, ONIONS AND TURNIPS

Are, all of them, highly nutritious and strength-sustaining, and should, therefore, be largely consumed by the working classes.

They all contain an abundance of gluten, in combination with sugar and starch.

CABBAGE

Is especially rich in gluten, and, all things considered, is perhaps the most nourishing and muscle-producing of all the vegetables proper.

Vegetables should always be put into boiling water when about to be cooked; a little salt should also be added, and, in the case of green vegetables, a little carbonate of soda also. This not only preserves their color but also makes them much more tender.

We now pass on to

ANIMAL FOOD.

BEEF

Stands the first in order, and is, unquestionably, "taken for all in all," the most nutritious, blood, muscle and strength-producing and maintaining of all meat. It may be eaten fresh or salted; it may be prepared by baking, broiling, boiling,

roasting, stewing, and in a variety of other ways. The principal processes have been already described, and need not, therefore, be repeated here. I shall, at once, proceed to give a few practical receipts, in which beef plays an important part in making wholesome, toothsome, and nutritious dishes, especially adapted to the working classes.

BEEFSTEAK PUDDING.

Rub half a pound of either beef dripping, lard or finely chopped suet into one pound and a half of flour, adding a pinch of salt. Make it into a stiff paste with as little water as possible, and roll it out moderately thin. Having scalded your pudding-cloth, lay it over a good-sized basin, pressing it to the bottom and around the sides; flour it well, and then lay in your crust smoothly over the well-floured cloth. Now put in two pounds of good round steak, which has been previously cut into dice about an inch square, and well seasoned with pepper and salt. Pour over this a teacupful of water; then mois-

ten the edges of your crust, and gather it up to the centre, pinch it well together, and then tie it up tightly in the cloth. Put it into a pot of sharply boiling water, and keep it boiling for three or four hours. When done, turn it out of the cloth into a dish, and serve immediately.

BEEFSTEAK PIE

May be made by lining a deep dish with paste, made as above described. Cut the meat into thin slices, and lay it in the dish, with a few thin strips of ham or salt pork; season well with pepper and salt; then put in a little water, thickened with flour and to which some sauce or ketchup has been added, enough to nearly fill the dish; cover with the upper crust, and bake for one hour and a quarter, or longer if the crust is thick.

SHIN OF BEEF SOUP.

Take a shin of beef, weighing say ten pounds, break it into small pieces, separate the bone from the meat, and take out the marrow. Put the

bones into a pot, cover them with cold water and let them boil for four or five hours. Put the marrow and the meat into another pot, set it over the fire to brown, keeping it well stirred about to prevent it from burning. When brown all over, put in a quart of water and a lump of salt; let it boil for a quarter of an hour; then add five quarts of water, two or three each of onions, turnips and carrots, cut into slices, a head of celery cut up, a few sweet herbs, and pepper and spice if preferred. Let it simmer slowly for four or five hours. Then add the liquor, in which the bones have been stewing; take off all the fat, and then take out a cupful of the soup and let it cool. Then stir in two tablespoonfuls of flour; add this, gradually, to the rest of the soup, stir all well together, and let it boil up, after which it will be ready to serve. The whole quantity of soup, when made, should measure about four quarts, and if properly made, will keep for a week or more in cold weather. This is a most excellent, valuable and

economical receipt. One pint of such soup is equal to about half a gallon of the slush usually called soup. It also makes a good stock from which any kind of soup may be made. If quantity and not quality is wanted, before serving it may be diluted with an equal quantity of hot water.

PEA SOUP

Is made by boiling a quart of split peas in a quart of water until soft, adding fresh water as it boils away; then rub them through a colander and add to four quarts of the above-mentioned soup.

BEAN SOUP

May be made in precisely the same way, substituting beans for peas. The beans, however, will require to be soaked over night in order to soften them. To either of the above-mentioned soups, plain suet dumplings may be added, and eaten with it.

PLAIN SUET DUMPLINGS.

Two cups of flour, one teaspoonful of baking

powder and a pinch of salt are made into a stiff paste with as little water as possible, and divided into small dumplings, and dropped into the boiling soup about twenty minutes before serving. Or, two cups of flour to one of beef suet, chopped very fine, and a pinch of salt, made into a stiff paste, divided, and dropped into the boiling soup, as before directed.

It would be well, indeed, if every woman in the land, who had to provide for a workingman, knew and made use of the above receipts. If carefully and faithfully followed, a bowl of either of them would form the best part of as good a meal as any man need wish for, but especially if he is a working man and it be in cold weather. It would be infinitely better if his dinner-pail contained a quart of either of the above described soups, than any amount of the "wishy washy" trash called tea and coffee, with which many poor fellows are supplied. Such soup would not only warm and comfort a man, but it would "stick to his ribs," and enable him, cheerfully, to continue his daily work.

MUTTON

Stands next to beef in general utility, and it may be used and prepared in precisely the same way.

An exceedingly wholesome, economical and highly nutritious dish for a working man and his family, may be made as follows: Put a cupful of pearl barley into a pot with three quarts of cold water, and let it boil. Then put in two pounds of the neck of mutton, boil gently for an hour, taking care to skim it occasionally. Add of each two carrots, turnips and onions, sliced, and if liked, some of the same vegetables uncut; season well with pepper and salt. Boil for one hour after the vegetables have been put in; add a little water, from time to time, to make up for loss by boiling, as the whole quantity, when done, should measure three quarts. Serve the broth in a tureen or deep dish, and the meat in a separate dish, garnished with the uncut vegetables. Thus the whole of the materials are utilized, and a very toothsome dish, for a large family, at an exceedingly moderate cost, is the result.

PORK

Is highly nutritious, and especially adapted to such as lead an active life out of doors, but it should always be eaten with plenty of vegetables, such as peas, beans, cabbage and potatoes.

BUBBLE AND SQUEAK

Is made by chopping up cooked potatoes and cabbage and mixing them together with cold salt pork or fish. Put them into a frying-pan, and keep them on the fire until they are all thoroughly hot through, constantly stirring to prevent burning. This dish makes a very appetizing breakfast, and will start a man out ready and able to do an honest day's work.

POULTRY, EGGS AND FRESH FISH

Are each and all of them very wholesome and highly nutritious, but not so well adapted, as many other kinds of food, to the needs of the hard-working man, owing to a deficiency in their staying qualities. They may, however, be profitably made use of, for the sake of variety, and under circumstances where a more substantial

meal does not seem to be called for. They are also especially suited for frequent use, instead of butchers' meat, by those who lead a sedentary life, and to such as work more with the brain than at bodily labor. At certain seasons of the year poultry of all kinds are apt to be anything but tender. This inconvenience, however, may be easily overcome by adopting the following plan: Put the bird into a deep plate that will fit the bottom of an ordinary steamer; steam for from one to two hours, or until the meat *begins* to separate from the exposed joints. Pour off, from time to time, any juice which may be extracted, and when sufficiently done put it into a quick oven and bake for an hour, or until it is thoroughly browned; *while in the oven it should also be well basted.* By this plan you will not only have a large quantity of very strong broth, but even the toughest bird will be made tender by this process; and it will also be more juicy than if it had been baked at once. The steam permeates every part of it, and not

only breaks down the fibres, but also supplies the place of the natural fluids extracted.

Among fish, those having white flesh, and which are covered with scales, are by far the most wholesome and easily digested, while those which are smooth in the skin are not only more oily, but are also more unwholesome and difficult of digestion. Almost all kinds of fish are more wholesome and easily digested when boiled; some, however, are very nice when broiled, but no fish is as wholesome when fried as when cooked by any other means.

What is commonly known as

TWICE LAID

Is composed of cold salt fish and potatoes, well beaten together and fried in cakes. It forms a very good and sustaining breakfast for a working man, and is especially suited to such as abstain from meat on certain days in the year.

CHEESE

Is also a very appropriate article of food for the

working man. Three or four slices of good, wholesome bread and a lump of sound cheese, well masticated and washed down with half a pint, or even a pint, of good sound beer, would form a lunch not to be despised by any working man.

MILK

Is a very wholesome, nutritious and life-sustaining article of diet, and should be much more freely consumed by all classes of people. It is both meat and drink, and should always be looked upon as such; otherwise, especially if swallowed at a draught, like water, it may, to some people, prove very indigestible, and even hurtful.

Milk, when taken alone, should always be swallowed slowly, allowing each mouthful to become mixed with saliva, and also allowing time for sufficient gastric juice to be poured out to digest each mouthful swallowed. When used in this way milk is, indeed, meat and drink, and, in my opinion, much more of the former than of

the latter quality, and will help to make a good substantial meal for any man.

We will now proceed to consider what may be called

MISCELLANEOUS ARTICLES OF FOOD.

Many people, in this country, despise beef dripping, deeming it fit only for "the swill-pail." Such people are not only sadly mistaken, but are also exceedingly wickedly wasteful. It is infinitely more wholesome and nutritious than three-fourths of the butter which is so readily sold, and so eagerly bought, by people who are as easily sold as the butter. It is not merely for making paste for pies and puddings that it is useful, but it is also excellent when eaten upon hot toast. In this way it is better than any butter. To obtain it pure, all that is necessary is to pour off the contents of the dripping-pan into a basin; let it get cold; take off the dripping,

melt it again, and strain it through muslin. When cold, preserve for use.

DRIPPING CRUST

Is made by rubbing half a pound of dripping in a pound and a half of flour; make into a paste, with as little tepid water as possible; roll out to any required thickness, and use it at once.

PLAIN BUTTER PASTE

Is made in the same way, by substituting a quarter of a pound of butter for the half pound of dripping, above directed.

PUFF PASTE

Is made by rubbing a quarter of a pound of butter into two pounds of flour; use as little water as possible, and make it into a paste as quickly as you can; roll it out to about the thickness of a quarter of an inch, cover it lightly with butter, sprinkle with flour, double it up, and roll out again. This buttering, flouring, doubling up and rolling are to be repeated four or five times, using up, in the whole process, an extra half a pound of butter.

RAISED PIE PASTE.

Boil a quarter of a pound of lard in one-eighth of a pint of water; pour, while boiling hot, into two pounds of flour, and well mix it together. When this is done knead it into a stiff dough, and form it into any shape you like, reserving sufficient to form the top of the pie.

PIES.

Fresh or canned fruits are best made into pies, in deep dishes, thus: Line the sides of your dish with puff paste; put into the center of the dish an empty teacup, turned upside down, to catch the juice; fill up your dish with alternate layers of fruit and sugar; put on your top crust, make a small hole in the centre of it, put into a slow oven, and bake for an hour.

OPEN PIES

Are best made by simply lining the plate or dish with puff paste, and baking it, in a quick oven, at once. When it is quite done, put in your fruit, which has previously been cooked, or jam

or whatever you want in your pies. This is a much better plan than to bake your fruit, or cook it twice.

PUDDINGS.

Plain suet pudding is made by mixing half a pound of finely chopped suet with one pound of flour, adding as little water and fingering it as little as possible. Scald a cloth and flour it well, put in your pudding, and boil or steam for an hour and a half. This is a very wholesome and excellent dish for children. It may be eaten either with meat gravy, or with jam, sugar, sweet sauce or molasses.

BATTER PUDDING

Is made by beating up three eggs, adding eight tablespoonfuls of flour, one teaspoonful of baking powder, a pinch of salt, and as much milk as will make it into a thin batter. Well butter a deep dish, pour in the batter, put into a quick oven and bake for three-quarters to one hour. It may be eaten with sugar and butter, sweet

sauce, or stewed fruit, or with meat gravy if preferred.

APPLE DUMPLINGS.

Pare, core and cut into quarters as many apples as are required. Make as much butter or dripping paste as will cover the apples. Into the space from which the core has been taken put three or four cloves, close up the four quarters and mould a piece of the paste neatly and evenly round it. If to be boiled or steamed, each will have to be put into a little separate cloth, which has been previously scalded and floured. If they are to be baked, they may be simply put into the baking dish. In any case, cook for three-quarters to one hour.

ROLEY-POLEY PUDDING.

Half a pound of suet, chopped very fine, is to be mixed with one pound of flour; make into a stiff paste and roll out to about one-quarter of an inch in thickness; spread this with jam, well-washed currants, mince-meat, etc., etc.; roll it up, pinch the ends together, put into a scalded

and floured cloth, well secured, and steam or boil for an hour and a half or two hours.

BOILED RICE PUDDING.

Well wash the rice and put it into a pot with plenty of water; let it boil until it is done and all the water has been taken up, care being taken that it does not burn. When done put into a well-buttered mould to set, or eat it just as it is, with stewed fruit, sweet sauce, etc., etc.

BAKED RICE PUDDING.

Boil a quarter of a pound of rice in a quart of milk, care being taken that it does not burn; when it begins to thicken, take it off the fire and allow it to cool; then stir in a lump of butter and sugar to the taste. Well butter your dish and put in your rice, and bake it in a moderately quick oven for three-quarters of an hour. Raisins, currants, sliced apples, indeed any kind of fruit, may be stirred in before baking, if preferred.

BREAD PUDDING.

Break up your stale bread into a dish; pour over sufficient boiled milk to soak it; cover it up for a quarter of an hour, then beat it into a fine pulp, stirring in a lump of butter. Beat up three or four eggs; add sugar and grated lemon peel to taste; half a pound of raisins, stoned and chopped, half a pound of currants, well washed and picked; a little salt. Mix these with the bread, beat them all together, and make it of the consistence of thick batter by adding a little milk if necessary. Butter your dish, put in your pudding and bake for half an hour.

PLUM PUDDING.

Take half a pound of flour, one pound of stale bread-crumbs, one pound of finely-chopped suet, one pound of currants (after having been well washed, picked over and dried), one pound of raisins, stoned and chopped, three-quarters of a pound of brown sugar, one-quarter of a pound each of candied orange, lemon and citron-peel,

one ounce of ground cinnamon, a quarter of an ounce of ground ginger, one nutmeg, grated, and a little salt; mix these well together. Beat up eight eggs and add a little milk, if necessary. Mix these with the other ingredients; make it stiff but not too thick; lastly, add half a pint of rum or brandy; well mix all together. Having well scalded and floured your pudding cloth, put in the mixed ingredients, gather up the edges of your cloth, tie very tight, and put into a pot with plenty of room and filled with boiling water; it must be kept constantly boiling for at least seven hours, adding boiling water as that in the pot boils away.

This is a pudding fit for a king, and if properly made and thoroughly cooked, will keep for an indefinite time.

A much plainer pudding, but equally good, may be made by using half the quantity of fruit and spices, and substituting therefor more flour and bread-crumbs, or leaving it just as it is, with half the fruits and spices withdrawn.

A GOOD LUNCH CAKE.

Beat together four eggs; warm half a pound of butter and add it to three-quarters of a pound of sugar; beat well into a cream with a wooden spoon; add the eggs and one pint of sweet milk; mix well and sift in one quart of flour in which two good teaspoonfuls of baking powder have been previously mixed; then add half a pound each of well washed and dried currants, stoned raisins and mixed candied peel; beat all well together, and bake in a moderate oven for one hour and a half to two hours, or until thoroughly done.

GINGERBREAD.

Beat well three eggs; add one cup of sweet milk; warm half a pound of butter, add to it three-quarters of a pound of brown sugar and two cups of molasses; beat well together and then add the milk and eggs; stir well together and sift in five pounds of flour, two and a half teaspoonfuls of baking powder, and two tablespoonfuls of ground ginger. Mix all of these

thoroughly together; cut into whatever shapes you please, and bake at once in a quick oven.

FRUITS

Of all kinds, when ripe and in their season, are exceedingly wholesome and beneficial, and should be largely partaken of by the working classes. Although they contain but little real nutriment, they, nevertheless, serve many very useful purposes in the animal economy, especially in hot weather, when they act as laxatives and refrigerants. They may be eaten either cooked or raw. Seed fruits, such as grapes, currants, strawberries, raspberries, etc., are certainly the most wholesome, while stone fruits, with the exception, perhaps, of peaches, must be partaken of with more caution. Apples, pears, oranges, lemons, bananas, etc., are exceedingly wholesome, and may be freely made use of at all seasons of the year.

DRINK.

If it be true that man needs food, it is equally so that he needs something to drink. I shall, therefore, say a few words upon this important branch of the subject. Liquids are necessary, not only to supply the demands made by perspiration, evaporation, exhalation and excretion, but they also serve to liquefy the food, and so render it easier of digestion and assimilation. As a general rule, however, much more fluid is taken than is actually necessary for these or any other purposes, and this excess is always productive of injury.

An average quantity of three pints a day is all that is absolutely necessary to meet all the demands of health.

I have already advised the free use of milk, but inasmuch as it contains a very large amount of solid material, it can hardly be considered in the light of an article of drink alone; nevertheless, I will here repeat that it is an exceedingly

wholesome, nutritious, and, when properly used, an easily digestible food, and as such should be largely consumed by working men.

WATER,

Pure and simple, is undoubtedly the natural drink for both man and beast. But the exigencies of human life, both civilized and savage, have demonstrated the fact that something else besides mere water is required to satisfy what is, apparently a perfectly natural, and if not abused, an innocent craving.

A longing for something which will produce an exhilarating, and yet, withal, a soothing effect, not only upon the physical frame, but also on the brain and nerves.

In support of this assertion it is a curious fact that savages, semi-savages and civilized peoples, living in the most varied and remote portions of this globe, have, unwittingly and untaught, selected various substances supplied by nature, which are used in a variety of ways, but all of

which seem to supply this all but universal craving. Furthermore, the great majority of these substances contain an absolutely identical active principle, and in the few which do not contain this identical principle, there is an ingredient which, though not chemically the same, nevertheless produces the same physiological effects.

For all general and practical purposes this principle may be called

"THEIN,"

And its effects are to ward off or palliate fatigue, to soothe the brain and nerves, and to prevent undue wasting of the tissues.

All substances containing this, or its allied principles, when used in moderation, are undoubtedly beneficial, but abused or used in excess, I unhesitatingly say are really more injurious, in constitutional effect, than over-indulgence in intoxicating liquors, properly so-called. In the former case, the effects produced are far more deep-seated and intractable, whereas, except in very

aggravated and confirmed cases, the effects of the abuse of the latter are far more evanescent and easily removed.

More than half of the headaches, neuralgias and nervous pain in general, not excepting even paralysis, are in reality, though but too frequently unsuspectedly, caused by

"THEISM,"

Or a too free indulgence in tea, coffee and such like substances.

There are upwards of thirty substances, produced by as great a variety of sources, which are used in the place of what are known to us as tea and coffee, and all of which, when used in excess, will either produce downright intoxication, or simply enervation or partial insensibility; and even among ourselves, I am fully convinced that coffee may be blamed for more real constitutional injury than whiskey, or all of the common intoxicants put together.

Nevertheless, both

TEA AND COFFEE

Are not only harmless, but may be considered beneficial or even necessary to the working classes, especially to those who work hard out of doors. It is upon those who lead a lazy and sedentary life, in doors, that these substances produce the most injurious effects. But, of the two, coffee is far better suited to the needs of the working man, it being possessed of far better staying qualities than tea.

Instead, however, of the "wishy washy" trash with which his pail is usually filled, it should contain a quart of really good coffee, made as follows:

TO MAKE GOOD COFFEE.

Half an ounce of pure coffee, well roasted and finely ground, is to be put into a scalded pot, and over it should be poured no more than half a pint of sharply boiling water; allow it to boil up until all the coffee-grounds have sank to the

bottom of the pot; then add a pint and a half of sweet milk, and allow the whole to become sufficiently hot to drink comfortably.

Such coffee as this would "charm the heart of even a wheelbarrow," if it had one. But, in order to obtain it in perfection, the above directions must be faithfully followed, especially in the matter of grinding. It must not be in junks such as are usually turned out of the mill at the grocery. It will even pay a man to have his own mill and grind his own coffee; he would then not only be able to grind it as fine as he chooses, but he will also know what coffee he is getting, a thing not to be laughed at, now-a-days.

In the matter of nutriment, however,

COCOA

Far exceeds either tea or coffee, and when well made, is admirably adapted to the wants of the working classes. There are now several very good brands in the market, and the proper directions always accompany every packet; these should always be faithfully followed.

CONCLUSION.

Having discussed the relative merits of the various articles used, both as food and drink, by man, all that remains for me is to add a few concluding remarks, as the importance of the subject strictly demands.

In writing this short essay, I can conscientiously say that I have been guided by the simple desire to aid in a good cause, for I am thoroughly convinced that if, not only the working classes but people of every grade and walk in life, would only live more in accordance with the dictates of nature and of common sense, not only should we have healthier and stronger fathers, mothers and children, but we should have a more contented because more healthy people. There would be more real honesty, and consequently less dissatisfaction and variance between labor and capital. Every man would do an honest day's work, and would receive an honest

day's pay. Even the very government would be better administered.

At all events, for the genuineness and practical utility of all the advice and receipts herein given, I can and do personally vouch for and guarantee, and if, in any way, I have been instrumental in forwarding the interests of the working classes, I shall, indeed, be well pleased.

Finally, I can confidently assure the reader that I have, myself, practically experienced the truth of the saying of an older and wiser man than I am, to wit: "A well-filled stomach gives a contented mind," and every one knows that "a contented mind is a continual feast."